

10/821500

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 09:07:19 ON 15 DEC 2006

=> file reg

COST IN U.S. DOLLARS

SINCE FILE
ENTRY

TOTAL
SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 09:07:39 ON 15 DEC 2006

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STRUCTURE FILE UPDATES: 14 DEC 2006 HIGHEST RN 915690-78-7

DICTIONARY FILE UPDATES: 14 DEC 2006 HIGHEST RN 915690-78-7

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on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

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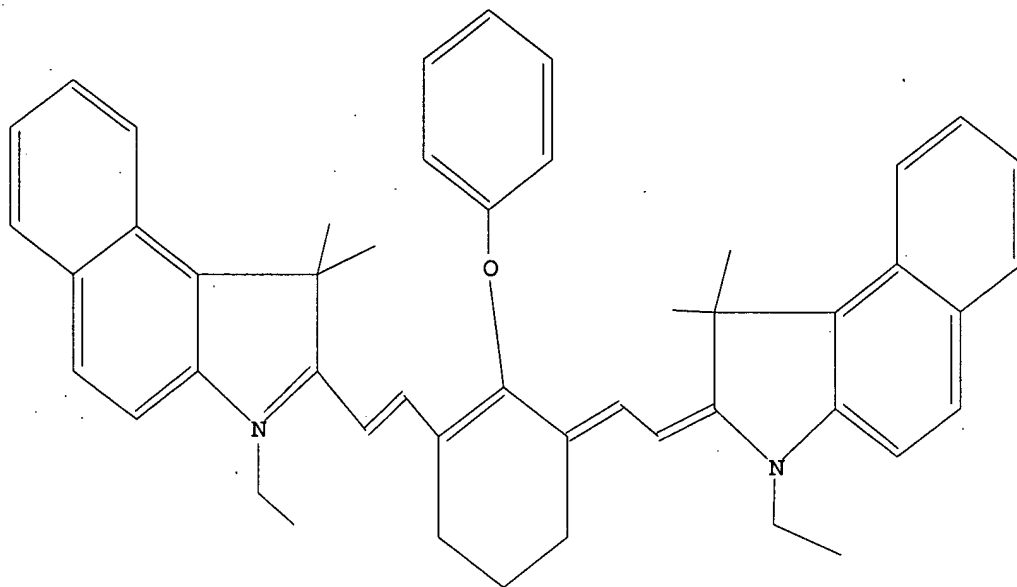
Uploading C:\Program Files\Stnexp\Queries\10821500.str

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 full

FULL SEARCH INITIATED 09:08:04 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 129 TO ITERATE

100.0% PROCESSED 129 ITERATIONS 35 ANSWERS
SEARCH TIME: 00.00.01

L2 35 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
166.94	167.15

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 09:08:08 ON 15 DEC 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 15 Dec 2006 VOL 145 ISS 26
FILE LAST UPDATED: 14 Dec 2006 (20061214/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

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=> s 12

L3 7 L2

=> dup rem l3

PROCESSING COMPLETED FOR L3

L4 7 DUP REM L3 (0 DUPLICATES REMOVED)

=> d l4 bib abs hitstr 1-7

L4 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:1103247 CAPLUS
DN 143:382388
TI Fluorescent labeled nucleotide derivatives
IN Shen, Gene G.-Y.; Lin, Yuan; Michael, Josephine M.
PA USA
SO U.S. Pat. Appl. Publ., 19 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005227240	A1	20051013	US 2004-821500	20040409
	WO 2005103162	A1	20051103	WO 2005-US9330	20050322
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRAI US 2004-821500 A 20040409

OS MARPAT 143:382388

AB Fluorescent labeled reporter compds. having a modified cyanine dye that is coupled to a nucleotide derivative through a linker are disclosed. The compds. are useful for nucleic acid sequence anal. The fluorescent labeled reporter compds. are ring-locked cyanine dyes that are coupled to a nucleotide derivative, such as a modified DNA base, through a linker. These fluorescent labeled reporter compds. can be used as DNA chain-terminators in DNA synthesis to generate DNA fragments that are fluorescently-labeled at the 3'-terminal end of the DNA fragment.

IT 866560-82-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

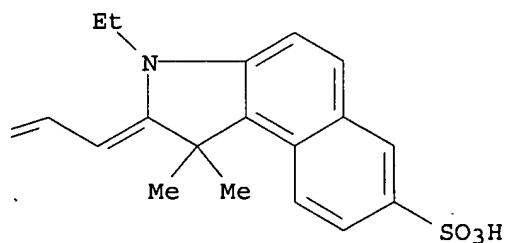
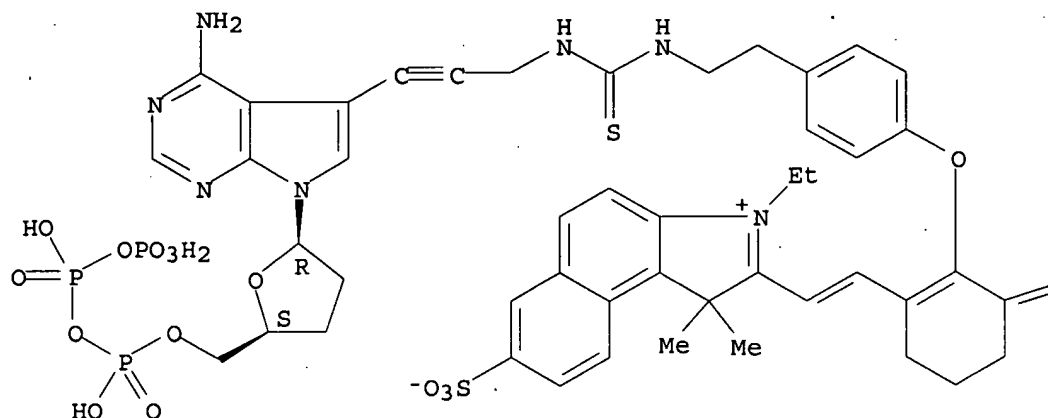
(ddATP-RLDBCy7; fluorescent labeled nucleotide derivs. for DNA sequencing)

RN 866560-82-9 CAPLUS

CN 3H-Indolium, 2-[2-[4-[2-[[[[3-[6-amino-9-[(2R,5S)-5-(3,5,7,7-tetrahydroxy-3,5,7-trioxido-2,4,6-trioxa-3,5,7-triphosphahept-1-yl)-2-furanyl]-7H-purin-5-yl]-2-propynyl]amino]carbonyl]amino]ethyl]phenoxy]-3-[2-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

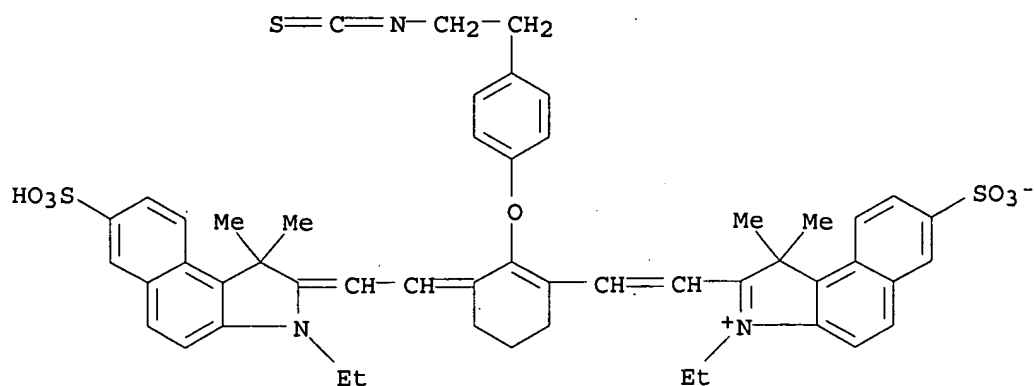
Double bond geometry unknown.



IT 866560-80-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (ring-locked DBCy7; fluorescent labeled nucleotide derivs. for DNA
 sequencing)

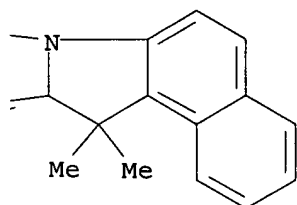
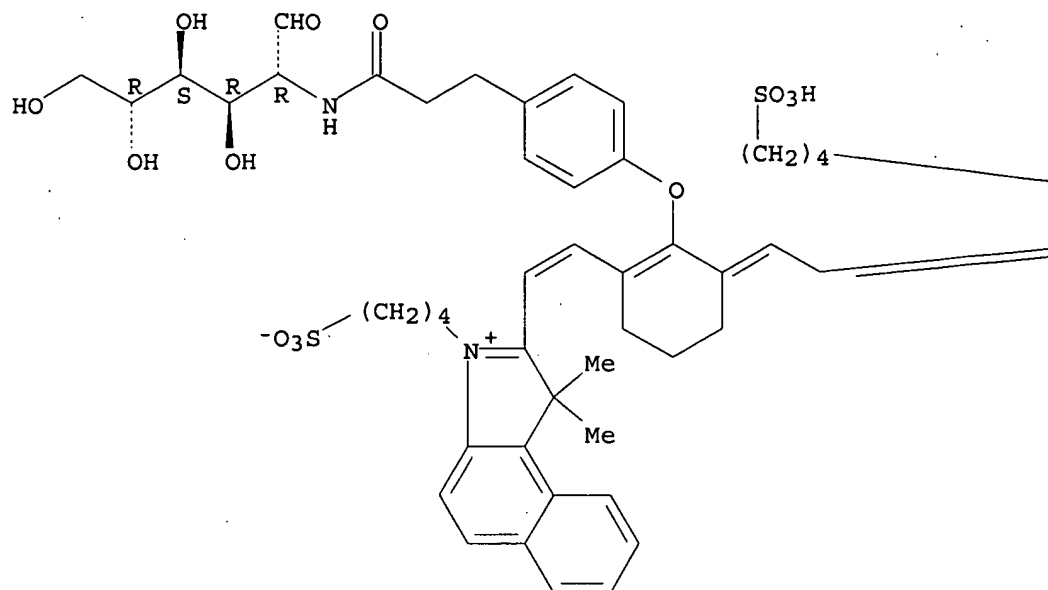
RN 866560-80-7 CAPLUS

CN 1H-Benz[e]indolium, 3-ethyl-2-[2-[3-[(3-ethyl-1,3-dihydro-1,1-dimethyl-7-
 sulfo-2H-benz[e]indol-2-ylidene)ethylidene]-2-[4-(2-
 isothiocyantoethyl)phenoxy]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-7-
 sulfo-, inner salt (9CI) (CA INDEX NAME)



L4 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2005:1109535 CAPLUS
 DN 145:205405
 TI NIR optical probes targeting glucose transporters
 AU Li, Hui; Chen, Juan; Zhang, Min; Zhang, Zhihong; Benaron, David; Chance, Britton; Glickson, Jerry D.; Zheng, Gang
 CS Department of Radiology, Univ. of Pennsylvania, Philadelphia, PA, 19104, USA
 SO Proceedings of SPIE-The International Society for Optical Engineering (2004), 5329(Genetically Engineered and Optical Probes for Biomedical Applications II), 254-261
 CODEN: PSISDG; ISSN: 0277-786X
 PB SPIE-The International Society for Optical Engineering
 DT Journal
 LA English
 AB A current limitation of NIR imaging is the lack of sufficient tumor-to-tissue contrast due to the nonspecific nature of delivering the dye to the tumor. Utilizing one of the most important cancer signatures, the overexpression of GLUTs, the authors have developed a series of 2-deoxyglucose conjugated NIR dyes (NIR-2DG) to enhance tumor selectivity. This uptake mechanism is first confirmed in vitro by confocal microscopy and flow cytometry studies with various cancer cells. Following i.v. administration to animals, NIR-2DGs are selectively accumulated in the tumor compared to the surrounding normal tissue as observed by ex vivo and in vivo fluorescence imaging techniques.
 IT 904298-98-2P
 RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (NIR optical probes targeting glucose transporters for tumor diagnosis)
 RN 904298-98-2 CAPLUS
 CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.
 Double bond geometry unknown.



● Na

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:164695 CAPLUS
DN 132:185494
TI Chromophore-polyoxyalkylene light imaging contrast agents
IN Snow, Robert Allen; Henrichs, Paul Mark; Sanderson, William Anthony;
Desai, Vinay Chandrakant; Delecki, Daniel Joseph; Hollister, Kenneth
Robert; Bacon, Edward Richard
PA Nycomed Imaging AS, Norway
SO Brit. UK Pat. Appl., 172 pp.
CODEN: BAXXDU

DT Patent
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2337523	A1	19991124	GB 1998-9217	19980429
PRAI	GB 1998-9217		19980429		
OS	MARPAT 132:185494				

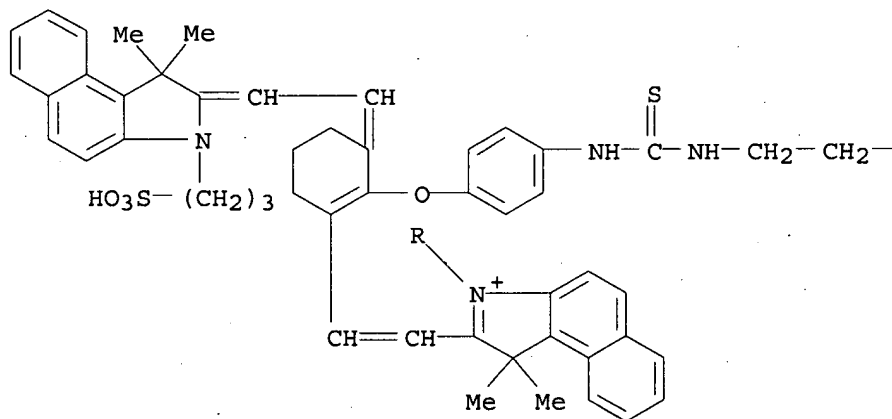
AB Physiol. tolerable water-soluble light imaging contrast agents have a mol. weight 500-500,000 and contain at least 2 chromophores having delocalized electron systems that are linked to at least 1 polymer surfactant moiety having a mol. weight 60-100,000. These contrast agents are useful in the treatment and diagnosis of disease, e.g. tumor, tissue. Thus, aluminum chlorophthalocyaninetetrasulfonyl chloride polymer with PEG- α , ω -diamine was prepared from PEG diamine and $\text{ClAlPc}(\text{SO}_2\text{Cl})_4$ in pyridine solution. The biodistribution of the polymer in female immunodeficient mice was determined.

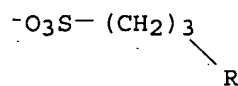
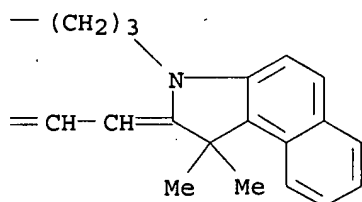
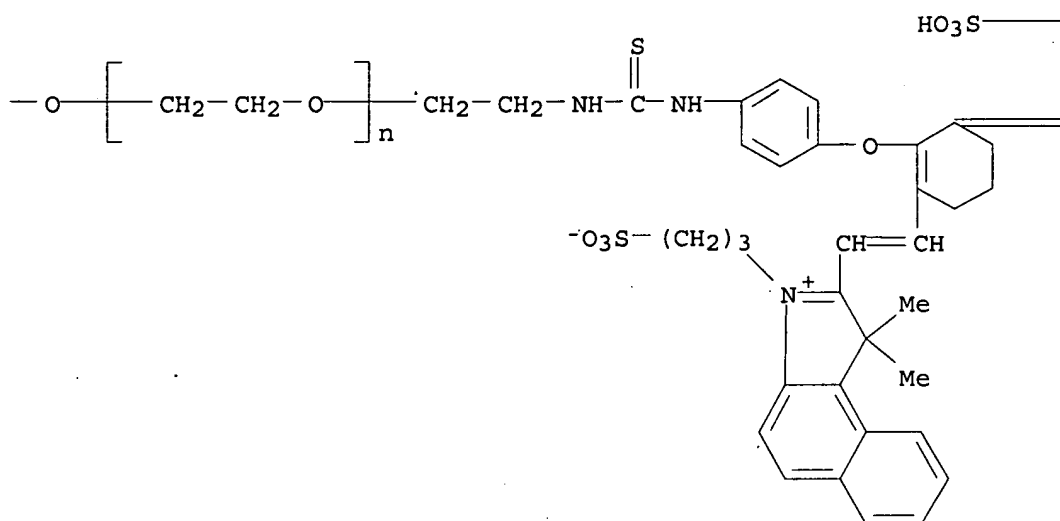
IT 259261-68-2P
 RL: BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
 (chromophore-polyoxyalkylene light imaging contrast agents)

RN 259261-68-2 CAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[2-[[[4-[[6-[2-[1,3-dihydro-1,1-dimethyl-3-(3-sulfopropyl)-2H-benz[e]indol-2-ylidene]ethylidene]-2-[2-[1,1-dimethyl-3-(3-sulfopropyl)-1H-benz[e]indolium-2-yl]ethenyl]-1-cyclohexen-1-yl]oxy]phenyl]amino]thioxomethyl]amino]ethyl]- ω -[2-[[[4-[[6-[2-[1,3-dihydro-1,1-dimethyl-3-(3-sulfopropyl)-2H-benz[e]indol-2-ylidene]ethylidene]-2-[2-[1,1-dimethyl-3-(3-sulfopropyl)-1H-benz[e]indolium-2-yl]ethenyl]-1-cyclohexen-1-yl]oxy]phenyl]amino]thioxomethyl]amino]ethoxy]-, bis(inner salt), disodium salt (9CI) (CA INDEX NAME)

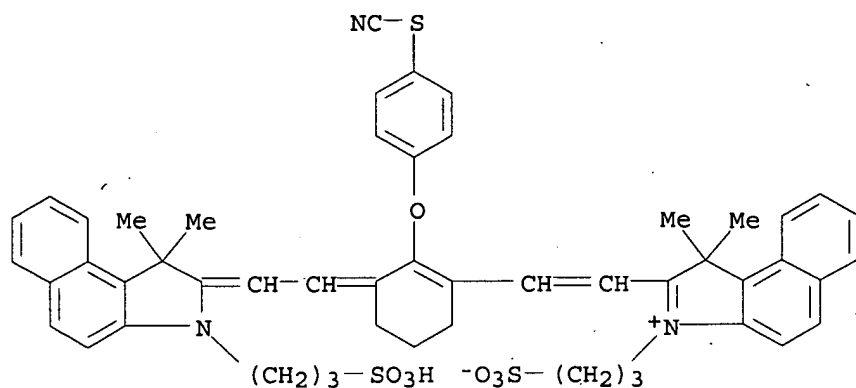
PAGE 1-A





● 2 Na

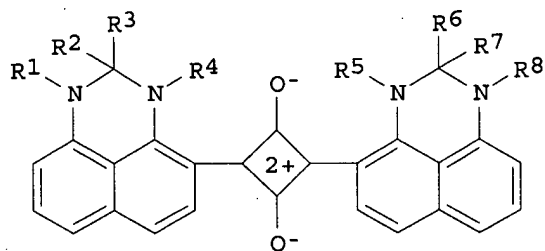
IT 259261-69-3P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (chromophore-polyoxyalkylene light imaging contrast agents)
 RN 259261-69-3 CAPLUS
 CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-1,1-dimethyl-3-(3-sulfopropyl)-2H-benz[e]indol-2-ylidene]ethylidene]-2-(4-thiocyanatophenoxy)-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-3-(3-sulfopropyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

L4 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1998:277339 CAPLUS
 DN 129:10697
 TI Laser-induced heat mode recording material containing dihydroxyperimidine squarilium dyes
 IN Ishihara, Shin; Harada, Toru
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 23 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10114151	A2	19980506	JP 1996-272282	19961015
	JP 3762493	B2	20060405		
PRAI	JP 1996-272282		19961015		
OS	MARPAT 129:10697				
GI					



AB In a heat mode recording material including imagewise-heating step using laser having ≥ 700 nm luminescence, the recording material possesses on a support, at least one thermal recording layer containing a substance of formula LD.HA (LD = colorless or light colored leuco dye; HA = an acid which loses its acidity due to decomposition or evaporation upon heating;

LD.HA represents the colored form of LD colored by HA) discoloring on heating, and said thermal recording layer or other layer containing said thermal recording layer contains a IR absorbing substance selected from a cyanine dye possessing ClO₄⁻ counter ions and a dihydroxyperimidine squarilium dye

(I; R1 - R8 = H, alkyl, cycloalkyl, aryl; R1 and R2, R3 and R4, R5 and R6, R7 and R8, R2 and R3 and/or R6 and R7 are bonded together to form a 5- or 6-membered ring). HA is a carboxylic acid which undergoes decarboxylation upon heating and LD is a leuco dye which undergoes coloration upon ring cleavage by an acid. The recording material possesses a back layer across the support opposite to the image-forming layer, and degree of smoothness of the outer most surface of the back layer is $\leq 4,000$ s. It also possesses an overcoat layer containing tetrafluoroethylene beads but not containing a substance discoloring upon heating which is located further away from the support than the thermal recording layer. This recording material gives stable images without installation of a large-scale collector for removed substances and enables single-heat mode recording. Use of the IR-absorbing dyes I markedly improves Dmin and the overcoat layer provides large matting effect on images and makes reading easy by covering finger print marks.

IT 207351-77-7

RL: TEM (Technical or engineered material use); USES (Uses)

(laser-induced heat mode recording material containing dihydroxyperimidine squarilium dyes)

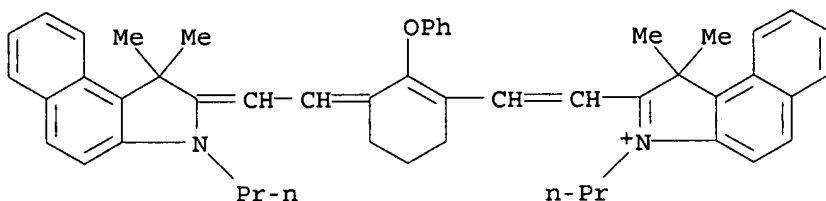
RN 207351-77-7 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[(1,3-dihydro-1,1-dimethyl-3-propyl-2H-benz[e]indol-2-ylidene)ethylidene]-2-phenoxy-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-3-propyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 207351-76-6

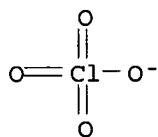
CMF C50 H53 N2 O



CM 2

CRN 14797-73-0

CMF Cl O4



L4 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:366130 CAPLUS

DN 125:99952

TI Photographic element with ether dye for near-infrared antihalation

IN Fabricius, Dietrich M.; Schelhorn, Thomas

PA E. I. Du Pont de Nemours & Co., USA

SO U.S., 14 pp., Cont.-in-part of U.S. Ser. No. 195,068, abandoned.

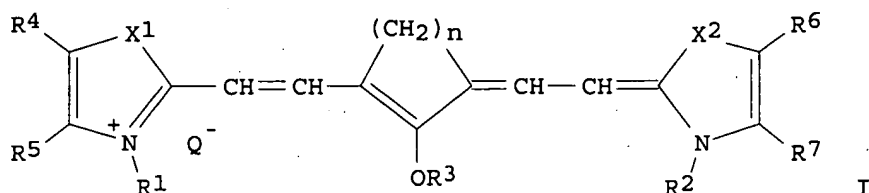
CODEN: USXXAM

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5519145	A	19960521	US 1994-225388	19940408
	JP 07287346	A2	19951031	JP 1995-82178	19950407
	US 5536626	A	19960716	US 1995-445455	19950531
PRAI	US 1994-195068	B2	19940214		
	US 1994-225388	A	19940408		
OS	MARPAT 125:99952				
GI					



AB A novel dye and photog. element comprising the dye are disclosed. The dye is especially useful as an antihalation dye in a photog. element. A particularly preferred embodiment is provided in a photog. element comprising an absorbing amount of the dye having the general formula I wherein X1, X2 independently represents CR8R9, S, Se, NR10, CH=CH, or O; R1 and R2 independently represent alkyl of 1 to 10 carbons or substituted alkyl of 1 to 10 carbons; R3 represents a ring chosen from the set consisting of aromatic rings of 6 or 10 carbons, substituted aromatic rings of

6

or 10 carbons, heterocyclic rings and substituted heterocyclic rings; R4, R5, R6, and R7 independently represent hydrogen, alkyl of 1-10 carbons, substituted alkyl of 1-10 carbons; R8, R9 independently represent alkyl of 1-10 carbons, substituted alkyl of 1-10 carbons, aromatic ring of 6 or 10 carbons, substituted aromatic ring of 6 or 10 carbons; R10 represents alkyl of 1-10 carbons, substituted alkyl of 1-10 carbons, aromatic ring of 6 or 10 carbons, substituted aromatic ring of 6 or 10 carbons; Q represents a counterion; and n is an integer of 2 and 3.

IT 173536-42-0P 173536-43-1P 173536-44-2P

173536-45-3P 173536-46-4P 173536-48-6P

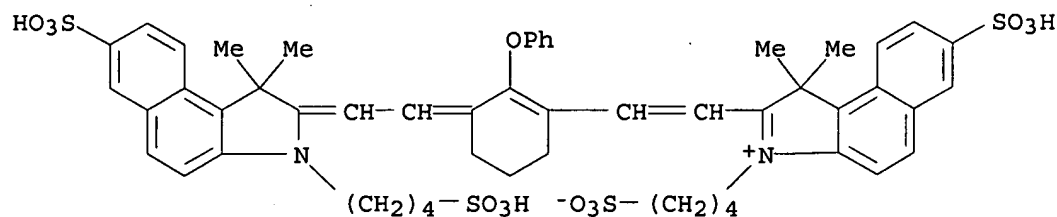
173536-49-7P 173536-50-0P 173536-51-1P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation and use as near-IR antihalation dye for silver halide photog. films)

RN 173536-42-0 CAPLUS

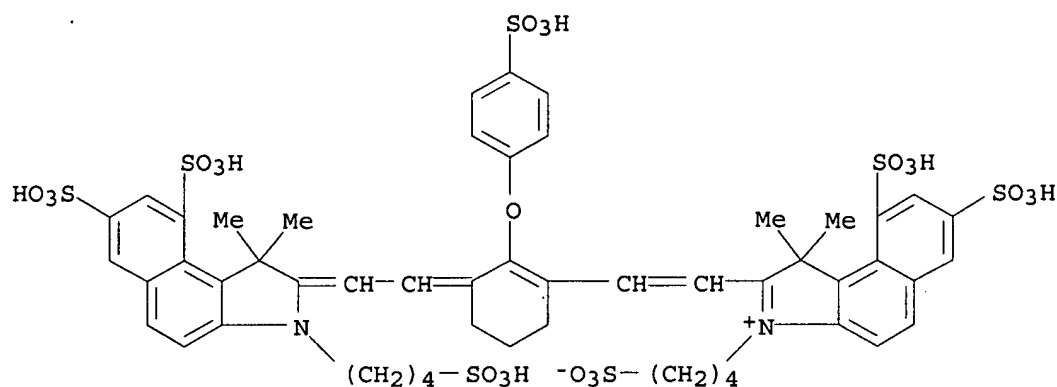
CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylydene]-2-phenoxy-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-, inner salt, trisodium salt (9CI) (CA INDEX NAME)



● 3 Na

RN 173536-43-1 CAPLUS

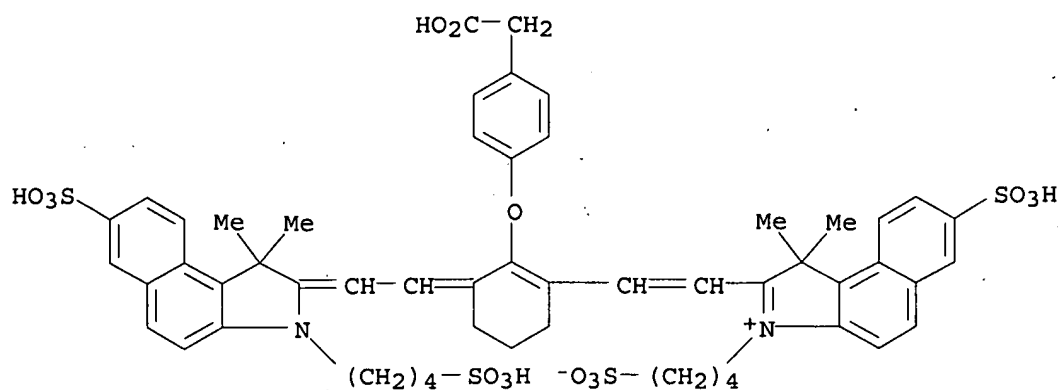
CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-1,1-dimethyl-7,9-disulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-2-(4-sulfophenoxy)-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-7,9-disulfo-3-(4-sulfobutyl)-, inner salt, hexasodium salt (9CI) (CA INDEX NAME)



● 6 Na

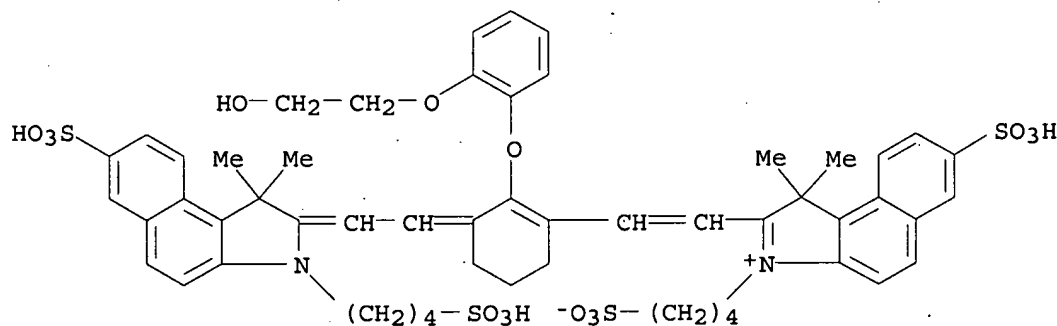
RN 173536-44-2 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-[4-(carboxymethyl)phenoxy]-3-[[1,3-dihydro-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-, inner salt, tetrasodium salt (9CI) (CA INDEX NAME)



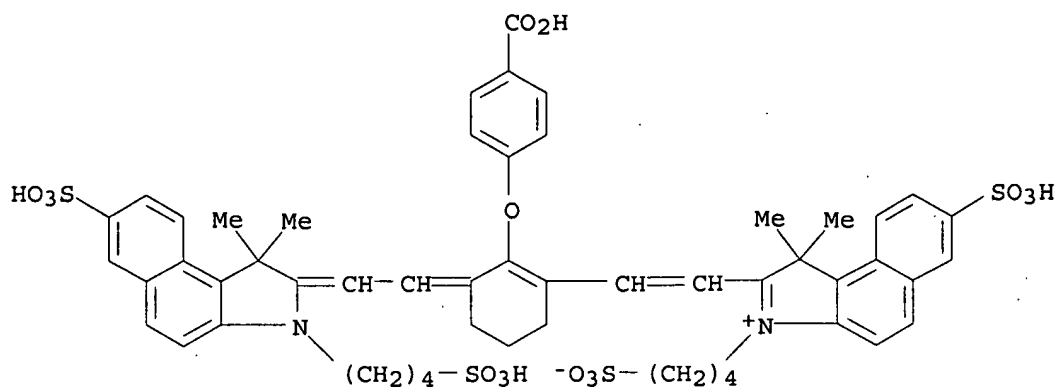
RN 173536-45-3 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethyldene]-2-[2-(2-hydroxyethoxy)phenoxy]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-, inner salt, trisodium salt (9CI) (CA INDEX NAME)



RN 173536-46-4 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-(4-carboxyphenoxy)-3-[[1,3-dihydro-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethyldene]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-, inner salt, tetrasodium salt (9CI) (CA INDEX NAME)



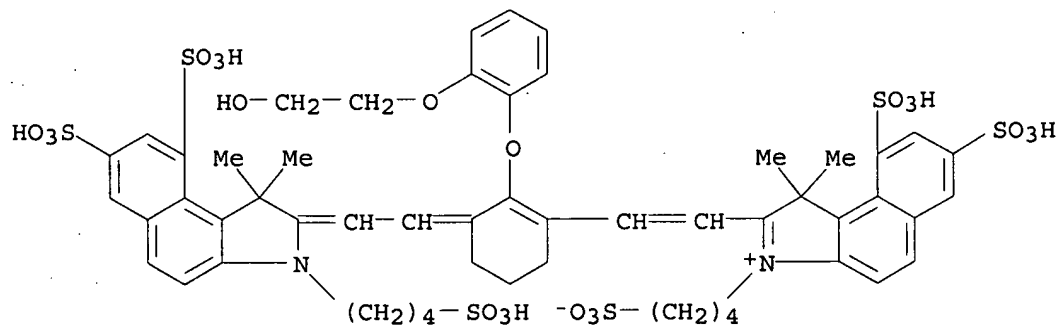
RN 173536-48-6 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-1,1-dimethyl-7,9-disulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-2-[2-(2-hydroxyethoxy)phenoxy]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-7,9-disulfo-3-(4-sulfobutyl)-, inner salt, sodium salt, compd. with N,N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 173536-47-5

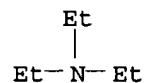
CMF C54 H60 N2 O21 S6



CM 2

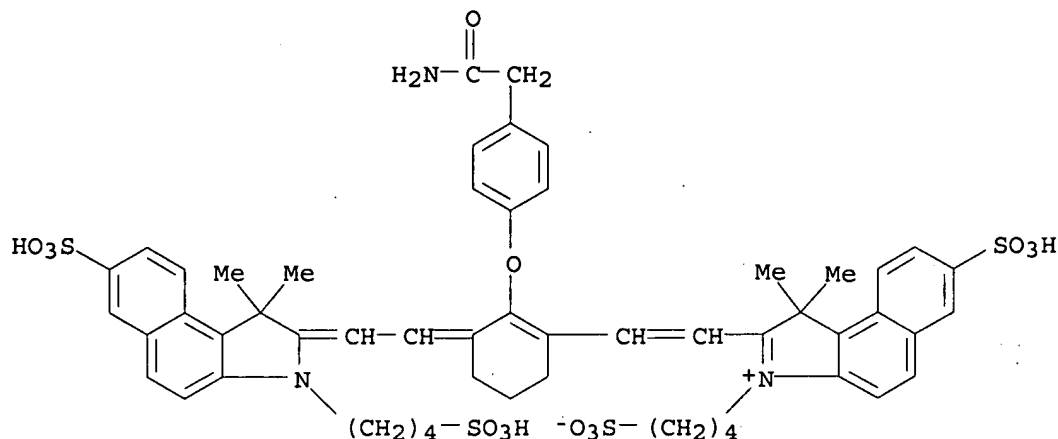
CRN 121-44-8

CMF C6 H15 N



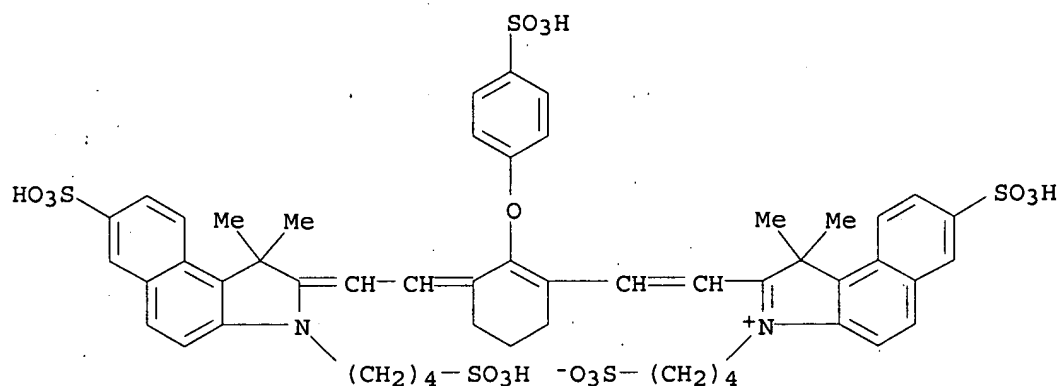
RN 173536-49-7 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-[4-(2-amino-2-oxoethyl)phenoxy]-3-[[1,3-dihydro-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-, inner salt, trisodium salt (9CI) (CA INDEX NAME)



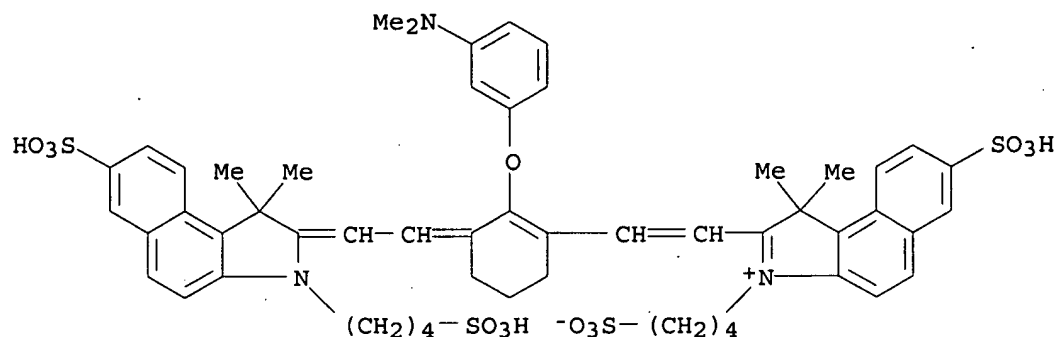
●3 Na

RN 173536-50-0 CAPLUS
 CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-2-(4-sulfophenoxy)-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-, inner salt, tetrasodium salt (9CI) (CA INDEX NAME)



●4 Na

RN 173536-51-1 CAPLUS
 CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-2-[3-(dimethylamino)phenoxy]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-, inner salt, trisodium salt (9CI) (CA INDEX NAME)

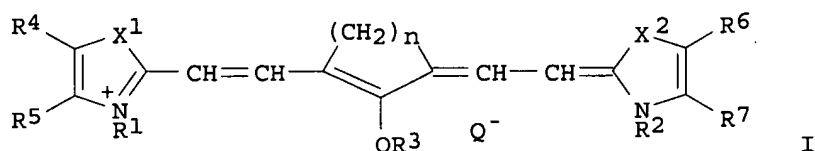


● 3 Na

L4 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1996:115129 CAPLUS
 DN 124:160219
 TI Photographic element containing novel dye for preventing near IR halation
 PA du Pont de Nemours, E. I., and Co., USA
 SO Jpn. Kokai Tokkyo Koho, 18 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07287346	A2	19951031	JP 1995-82178	19950407
	US 5519145	A	19960521	US 1994-225388	19940408
PRAI	US 1994-225388	A	19940408		
	US 1994-195068	B2	19940214		

GI

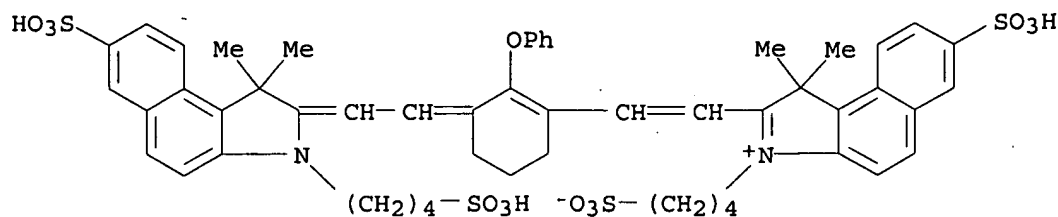


AB The title photog. element contains a novel dye I (X1, X2 = CR8R9(R8, R9 = C1-10 alkyl, C6-10 aromatic ring), S, Se, NR10(R10 = 1-10 alkyl, C6-10 aromatic ring), CH:CH, O; R1 and R2 = 1-10 alkyl, C6-10 aromatic ring or heterocyclic ring; Q = counter ion; n = 2, 3).

IT 173536-42-0P 173536-43-1P 173536-44-2P
 173536-45-3P 173536-46-4P 173536-48-6P
 173536-49-7P 173536-50-0P 173536-51-1P
 RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
 (prepared as dye for preventing near IR halation of photog. element)

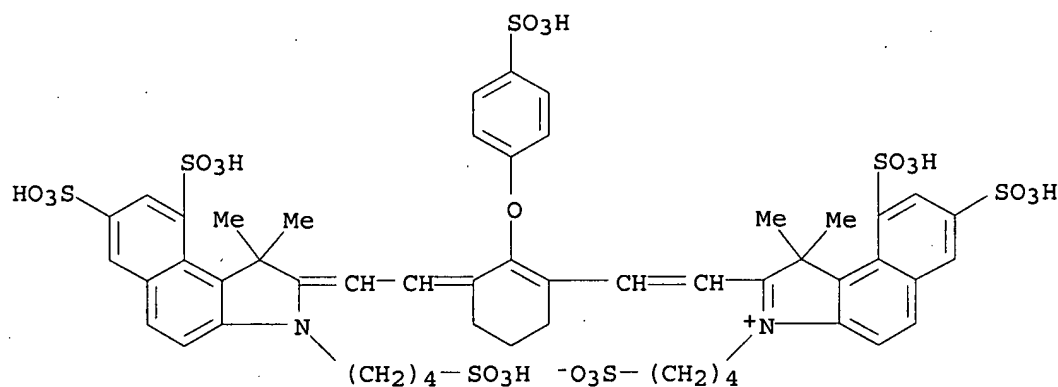
RN 173536-42-0 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-2-phenoxy-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-, inner salt, trisodium salt (9CI) (CA INDEX NAME)



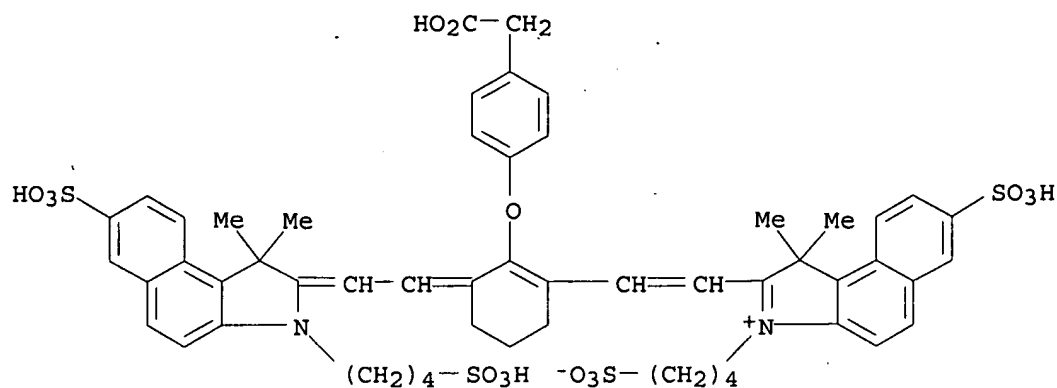
● 3 Na

RN 173536-43-1 CAPLUS
 CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-1,1-dimethyl-7,9-disulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-2-(4-sulfophenoxy)-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-7,9-disulfo-3-(4-sulfobutyl)-, inner salt, hexasodium salt (9CI) (CA INDEX NAME)



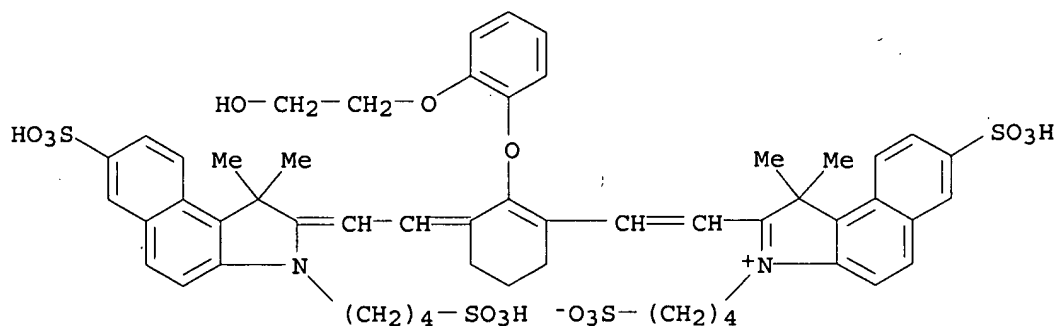
● 6 Na

RN 173536-44-2 CAPLUS
 CN 1H-Benz[e]indolium, 2-[2-[2-[4-(carboxymethyl)phenoxy]-3-[[1,3-dihydro-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-, inner salt, tetrasodium salt (9CI) (CA INDEX NAME)



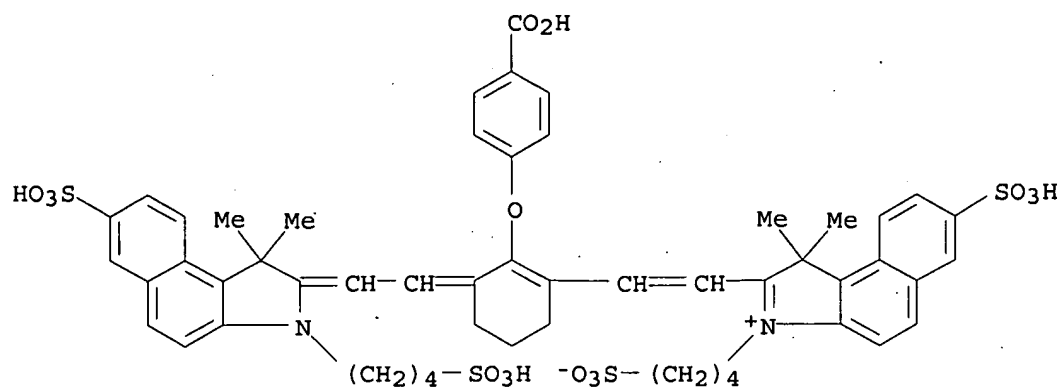
RN 173536-45-3 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-2-[2-(2-hydroxyethoxy)phenoxy]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-, inner salt, trisodium salt (9CI) (CA INDEX NAME)



RN 173536-46-4 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-(4-carboxyphenoxy)-3-[[1,3-dihydro-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-, inner salt, tetrasodium salt (9CI) (CA INDEX NAME)



● 4 Na

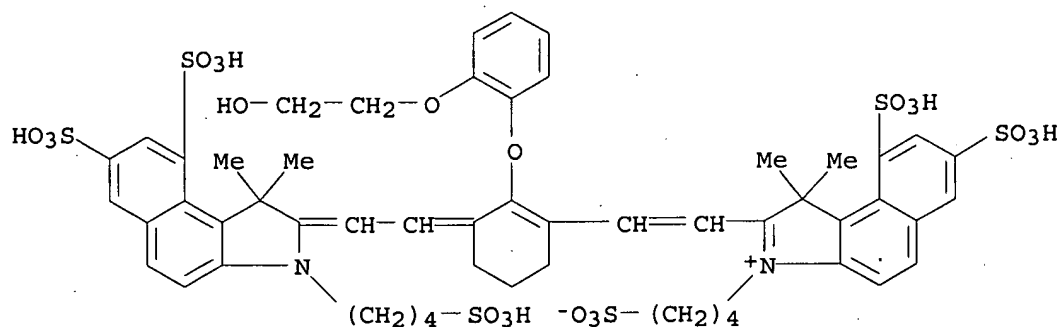
RN 173536-48-6 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-1,1-dimethyl-7,9-disulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-2-[2-(2-hydroxyethoxy)phenoxy]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-7,9-disulfo-3-(4-sulfobutyl)-, inner salt, sodium salt, compd. with N,N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 173536-47-5

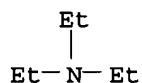
CMF C54 H60 N2 O21 S6



CM 2

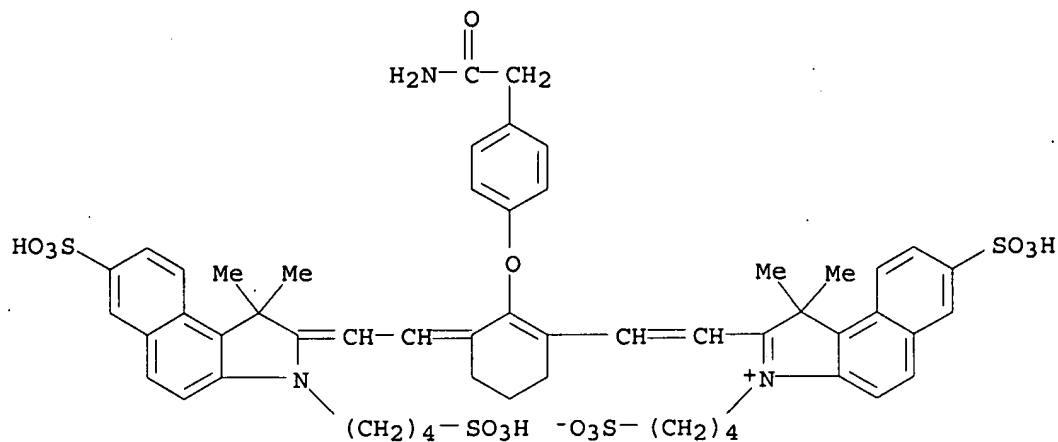
CRN 121-44-8

CMF C6 H15 N



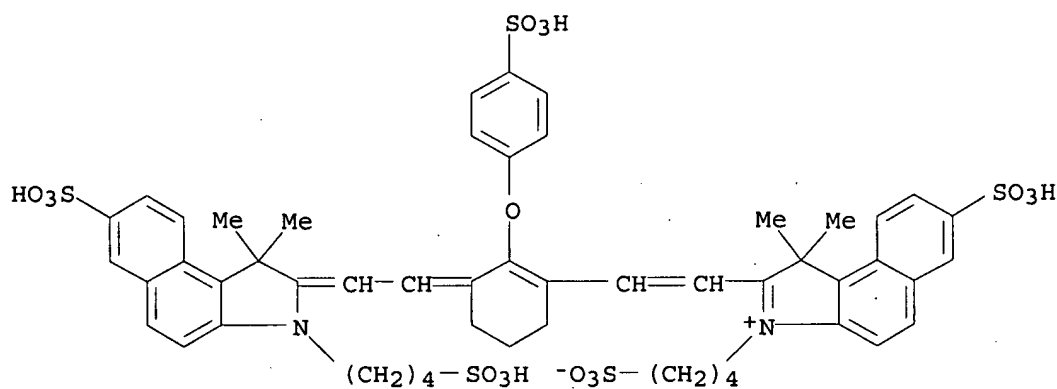
RN 173536-49-7 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-[4-(2-amino-2-oxoethyl)phenoxy]-3-[[1,3-dihydro-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-, inner salt, trisodium salt (9CI) (CA INDEX NAME)



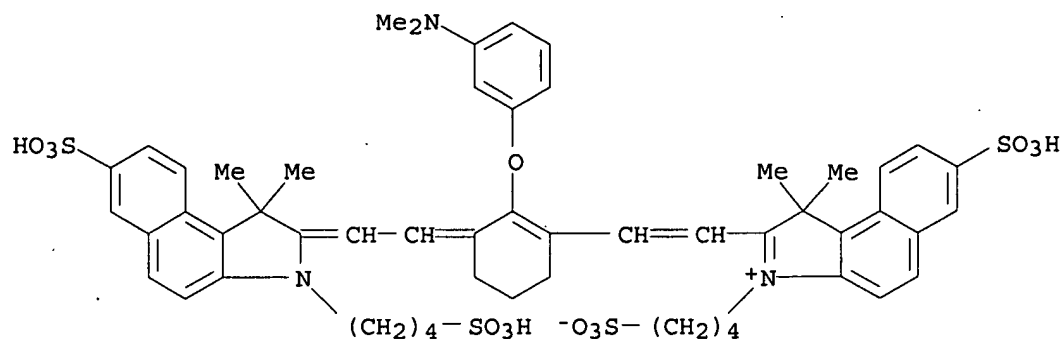
● 3 Na

RN 173536-50-0 CAPLUS
 CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-2-(4-sulfophenoxy)-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-, inner salt, tetrasodium salt (9CI) (CA INDEX NAME)



● 4 Na

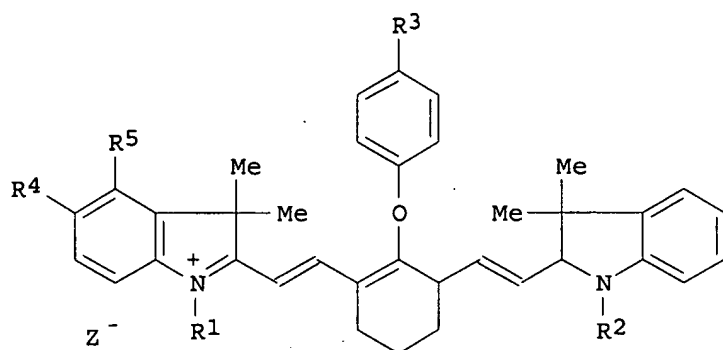
RN 173536-51-1 CAPLUS
 CN 1H-Benz[e]indolium, 2-[2-[3-[[1,3-dihydro-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-2-[3-(dimethylamino)phenoxy]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-7-sulfo-3-(4-sulfobutyl)-, inner salt, trisodium salt (9CI) (CA INDEX NAME)



● 3 Na

L4 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1995:896316 CAPLUS
 DN 123:308170
 TI A method of identifying strands of DNA using infrared fluorescent labels.
 IN Patonay, Gabor; Narayanan, Narasimhachari; Strekowski, Lucjan; Middendorf, Lyle Richard; Lipowska, Malgorzata
 PA Li-Cor, Inc., USA
 SO Eur. Pat. Appl., 46 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 12

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 670374	A1	19950906	EP 1995-250047	19950228
	EP 670374	B1	19980513		
	R: DE, FR, GB, SE				
	US 5571388	A	19961105	US 1994-204627	19940301
PRAI	US 1994-204627	A	19940301		
	US 1984-594676	A3	19840329		
	US 1987-78279	B2	19870727		
	US 1990-570503	A2	19900821		
	US 1991-763230	A3	19910920		
	US 1992-860140	A2	19920330		
OS	MARPAT 123:308170				
GI					



- I, $R^1 = (CH_2)_3NCS$, $R^2 = (CH_2)_4SO_3^-$, $R^3 = H$, OMe ,
 $R^4R^5 = CH=CHCH=CH$
 II, $R^1 = (CH_2)_3OH$, $R^2 = (CH_2)_4SO_3Na$, $R^3 = H$,
 $R^4R^5 = CH=CHCH=CH$, $Z = Br$
 III, $R^1R^2 = CH_2XCH_2$, $R^3 = NCS$, $R^4R^5 = H$, $Z = Br$
 IV, $R^1R^2 = (CH_2)_2X^1C_6H_3-5-R-X^1(CH_2)_2-1,3$,
 $R^3 = Y$, $R^4R^5 = H$, $Z = Br$

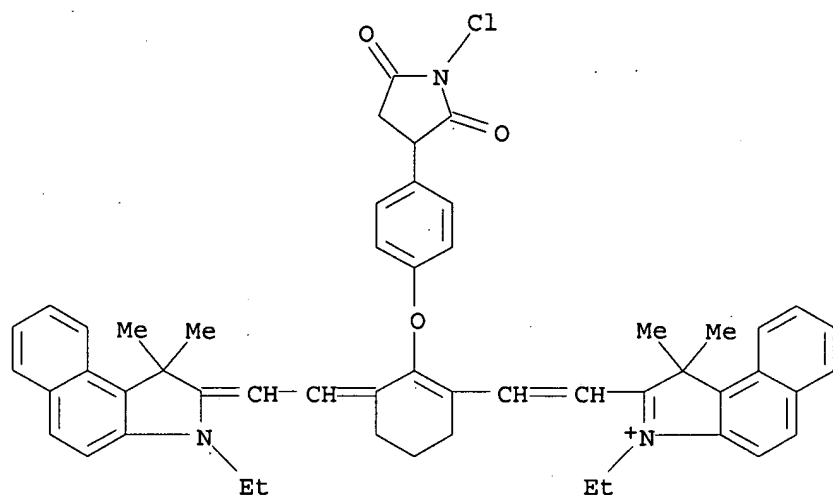
AB Disclosed is a method of identifying strands of DNA, comprising the steps of: marking the strands with fluorescent labels, irradiating the strands and detecting the light emitted from the fluorescent strands. The labels emit light in a region of wavelengths including at ≥ 1 wavelength within the IR and near IR region wherein the fluorescent label includes a chromophore having, a formula selected from I, II, III [$X = (CH_2)_n$; $n = 4-10$; or $X = CH_2-CH_2-O-CH_2-CH_2-OCH_2-CH_2-$], and IV ($X^1 = O, NH$; $Y = NCS, H$; $R = H, NCS, CHOH, CHNCS, COOH$). A few synthetic cyanine dyes were shown.

IT 169765-66-6 169765-67-7 169765-68-8
 169765-69-9

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (IR fluorescent chromophore; in method of identifying strands of DNA)

RN 169765-66-6 CAPLUS

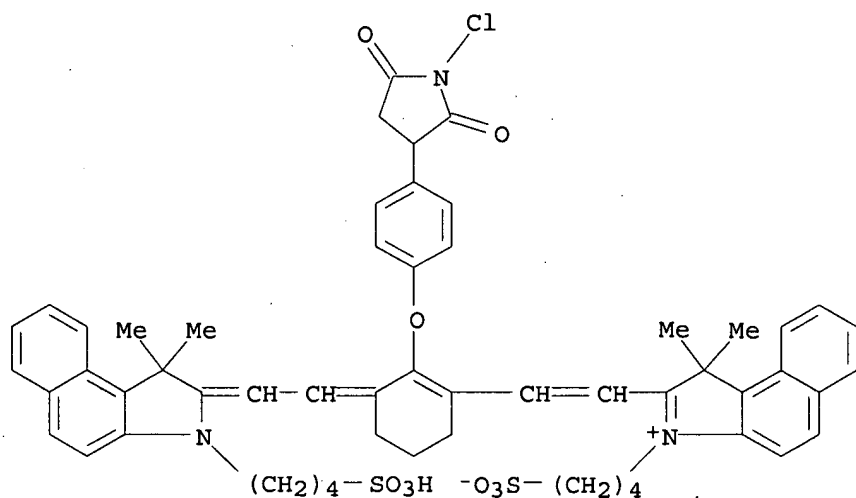
CN 1H-Benz[e]indolium, 2-[2-[2-[4-(1-chloro-2,5-dioxo-3-pyrrolidinyl)phenoxy]-3-[(3-ethyl-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-3-ethyl-1,1-dimethyl-, iodide (9CI) (CA INDEX NAME)



● I⁻

RN 169765-67-7 CAPLUS

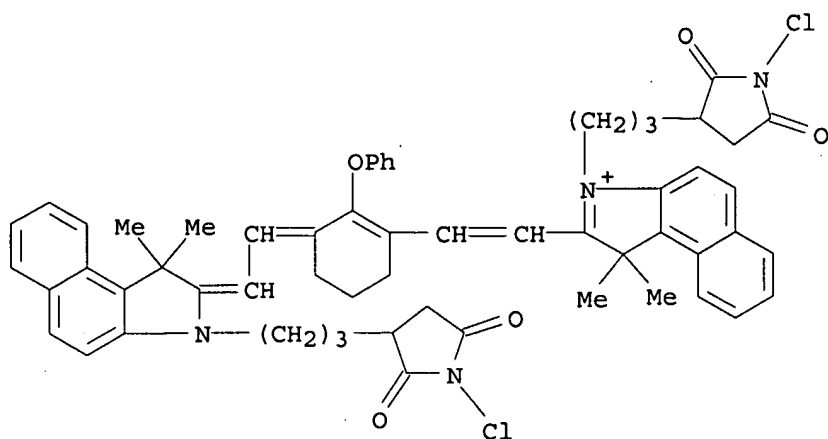
CN 1H-Benz[e]indolium, 2-[2-[2-[4-(1-chloro-2,5-dioxo-3-pyrrolidinyl)phenoxy]-3-[[1,3-dihydro-1,1-dimethyl-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-3-(4-sulfobutyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

RN 169765-68-8 CAPLUS

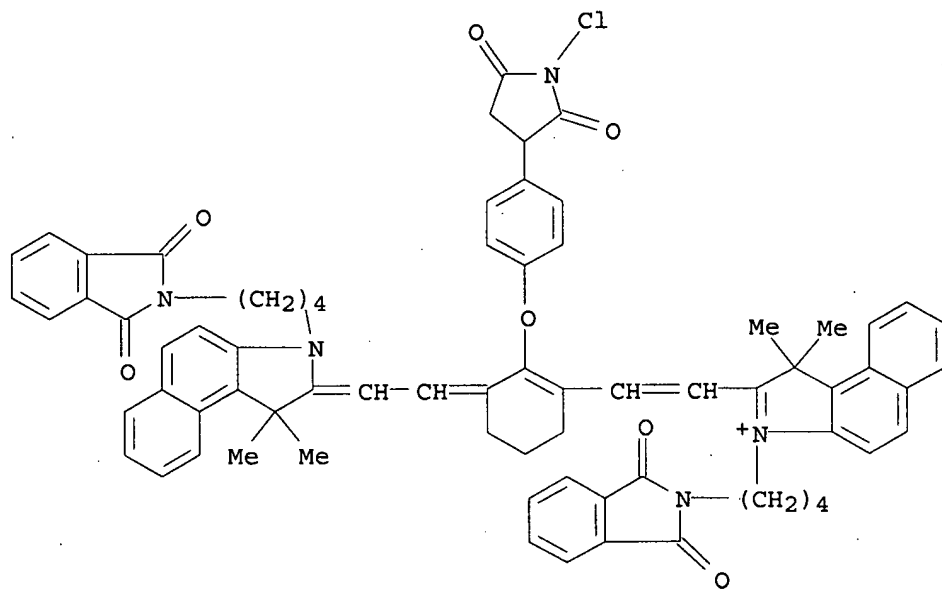
CN 1H-Benz[e]indolium, 3-[3-(1-chloro-2,5-dioxo-3-pyrrolidinyl)propyl]-2-[2-[3-[[3-[3-(1-chloro-2,5-dioxo-3-pyrrolidinyl)propyl]-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene]ethylidene]-2-phenoxy-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-, bromide (9CI) (CA INDEX NAME)



● Br⁻

RN 169765-69-9 CAPLUS

CN 1H-Benz[e]indolium, 2-[2-[2-[4-(1-chloro-2,5-dioxo-3-pyrrolidinyl)phenoxy]-3-[[3-[4-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)butyl]-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene]ethenyl]-1-cyclohexen-1-yl]ethenyl]-3-[4-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)butyl]-1,1-dimethyl- (9CI)
(CA INDEX NAME)



=>

=> file biosis medline caplus wpids uspatfull
COST IN U.S. DOLLARS

SINCE FILE ENTRY	TOTAL SESSION
55.18	222.33

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE ENTRY	TOTAL SESSION
-6.00	-6.00

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FILE 'USPATFULL' ENTERED AT 09:27:14 ON 15 DEC 2006
CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

*** YOU HAVE NEW MAIL ***

=> s cyanine dye? (4a) nucleotide?
L7 76 CYANINE DYE? (4A) NUCLEOTIDE?

=> s l7 and link? (4a) nucleotide?
L8 26 L7 AND LINK? (4A) NUCLEOTIDE?

=> dup rem l8
PROCESSING COMPLETED FOR L8
L9 24 DUP REM L8 (2 DUPLICATES REMOVED)

=> d l9 bib abs 1-24

L9 ANSWER 1 OF 24 USPATFULL on STN
AN 2006:202424 USPATFULL
TI Labeling reagents and labeled targets comprising nonmetallic porphyrins
IN Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Rabbani, Elazar, New York, NY, UNITED STATES
PA Enzo Life Sciences, Inc., c/o Enzo Biochem, Inc., New York, NY, UNITED STATES (U.S. corporation)
PI US 2006172308 A1 20060803
AI US 2004-763088 A1 20040122 (10)
RLI Division of Ser. No. US 2002-96075, filed on 12 Mar 2002, PENDING
DT Utility
FS APPLICATION
LREP ENZO BIOCHEM, INC., 527 MADISON AVENUE (9TH FLOOR), NEW YORK, NY, 10022, US
CLMN Number of Claims: 19
ECL Exemplary Claim: 1
DRWN 15 Drawing Page(s)
LN.CNT 3541
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention provides for labeling reagents, labeled targets and processes for preparing labeling reagents. The labeling reagents can take the form of cyanine dyes, xanthene dyes, porphyrin dyes, coumarin dyes or composite dyes. These labeling reagents are useful for labeling probes or targets, including nucleic acids and proteins. These reagents

can be usefully applied to protein and nucleic acid probe based assays. They are also applicable to real-time detection processes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 2 OF 24 USPATFULL on STN
AN 2006:151496 USPATFULL
TI Method for the SNP analysis on biochips having oligonucleotide areas
IN Fischer, Dirk, Gatersleben, GERMANY, FEDERAL REPUBLIC OF
Geistlinger, Jorg, Gatersleben, GERMANY, FEDERAL REPUBLIC OF
PI US 2006127932 A1 20060615
AI US 2005-293048 A1 20051202 (11)
RLI Continuation of Ser. No. WO 2004-EP6002, filed on 3 Jun 2004, UNKNOWN
PRAI DE 2003-10325098 20030603
DT Utility
FS APPLICATION
LREP KNOBBE MARTENS OLSON & BEAR LLP, 2040 MAIN STREET, FOURTEENTH FLOOR,
IRVINE, CA, 92614, US
CLMN Number of Claims: 19
ECL Exemplary Claim: 1
DRWN 4 Drawing Page(s)
LN.CNT 1524

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to a method for the multiparallel detection of nucleotide polymorphisms on a polydimensional array. The invention also relates to a method for detecting many individual nucleotide polymorphisms, during which the nucleotide polymorphisms of multiple individuals can be multiparallely detected on the array. According to the invention, the hybridization of a probe molecule with a sample molecule ensues in a hybridization field on the array that is separated from surrounding hybridization fields.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 3 OF 24 USPATFULL on STN
AN 2006:40616 USPATFULL
TI Processes for incorporating nucleic acid sequences into an analyte or library of analytes
IN Rabbani, Elazar, New York, NY, UNITED STATES
Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Donegan, James J., Long Beach, NY, UNITED STATES
Coleman, Jack, East Northport, NY, UNITED STATES
Liu, Dakai, Islip, NY, UNITED STATES
PA Enzo Life Sciences, Inc., New York, NY, UNITED STATES (U.S. corporation)
PI US 2006035264 A1 20060216
AI US 2005-237466 A1 20050927 (11)
RLI Division of Ser. No. US 2002-96076, filed on 12 Mar 2002, PENDING
DT Utility
FS APPLICATION
LREP ENZO BIOCHEM, INC., 527 MADISON AVENUE (9TH FLOOR), NEW YORK, NY, 10022, US
CLMN Number of Claims: 69
ECL Exemplary Claim: 1-413
DRWN 15 Drawing Page(s)
LN.CNT 4099

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides for compositions for use in real time nucleic acid detection processes. Such real time nucleic acid detection processes are carried out with energy transfer elements attached to nucleic acid primers, nucleotides, nucleic acid probes or nucleic acid binding agents. Real time nucleic acid detection allows for the qualitative or quantitative detection or determination of single-stranded or double-stranded nucleic acids of interest in a sample. Other processes are provided by this invention including

processes for removing a portion of a homopolymeric sequence, e.g., poly A sequence or tail, from an analyte or library of analytes. Compositions useful in carrying out such removal processes are also described and provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 4 OF 24 USPATFULL on STN
AN 2006:34199 USPATFULL
TI Processes for quantitative or qualitative detection of single-stranded or double-stranded nucleic acids
IN Rabbani, Elazar, New York, NY, UNITED STATES
Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Donegan, James J., Long Beach, NY, UNITED STATES
Coleman, Jack, East Northport, NY, UNITED STATES
Liu, Dakai, Islip, NY, UNITED STATES
PI US 2006029968 A1 20060209
AI US 2005-235516 A1 20050926 (11)
RLI Division of Ser. No. US 2002-96076, filed on 12 Mar 2002, PENDING
DT Utility
FS APPLICATION
LREP ENZO BIOCHEM, INC., 527 MADISON AVENUE (9TH FLOOR), NEW YORK, NY, 10022, US
CLMN Number of Claims: 275
ECL Exemplary Claim: 1-33
DRWN 15 Drawing Page(s)
LN.CNT 5182

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides for compositions for use in real time nucleic acid detection processes. Such real time nucleic acid detection processes are carried out with energy transfer elements attached to nucleic acid primers, nucleotides, nucleic acid probes or nucleic acid binding agents. Real time nucleic acid detection allows for the qualitative or quantitative detection or determination of single-stranded or double-stranded nucleic acids of interest in a sample. Other processes are provided by this invention including processes for removing a portion of a homopolymeric sequence, e.g., poly A sequence or tail, from an analyte or library of analytes. Compositions useful in carrying out such removal processes are also described and provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 5 OF 24 USPATFULL on STN
AN 2006:27907 USPATFULL
TI Site- or sequence-specific process for cleaving analytes and library of analytes
IN Rabbani, Elazar, New York, NY, UNITED STATES
Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Donegan, James J., Long Beach, NY, UNITED STATES
Coleman, Jack, East Northport, NY, UNITED STATES
Liu, Dakai, Islip, NY, UNITED STATES
PA Enzo Life Sciences, Inc., New York, NY, UNITED STATES (U.S. corporation)
PI US 2006024738 A1 20060202
AI US 2005-237467 A1 20050927 (11)
RLI Division of Ser. No. US 2002-96076, filed on 12 Mar 2002, PENDING
DT Utility
FS APPLICATION
LREP ENZO BIOCHEM, INC., 527 MADISON AVENUE (9TH FLOOR), NEW YORK, NY, 10022, US
CLMN Number of Claims: 555
ECL Exemplary Claim: 1
DRWN 15 Drawing Page(s)
LN.CNT 6144

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides for compositions for use in real time nucleic acid detection processes. Such real time nucleic acid detection processes are carried out with energy transfer elements attached to nucleic acid primers, nucleotides, nucleic acid probes or nucleic acid binding agents. Real time nucleic acid detection allows for the qualitative or quantitative detection or determination of single-stranded or double-stranded nucleic acids of interest in a sample. Other processes are provided by this invention including processes for removing a portion of a homopolymeric sequence, e.g., poly A sequence or tail, from an analyte or library of analytes. Compositions useful in carrying out such removal processes are also described and provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 6 OF 24 USPATFULL on STN

AN 2006:27906 USPATFULL

TI Process for removal of homopolymeric sequence portion from analyte(s) and library of analytes

IN Babbani, Elazar, New York, NY, UNITED STATES
Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Donegan, James J., Long Beach, NY, UNITED STATES
Coleman, Jack, East Northport, NY, UNITED STATES
Liu, Dakai, Islip, NY, UNITED STATES

PA Enzo Life Sciences, Inc., New York, NY, UNITED STATES (U.S. corporation)

PI US 2006024737 A1 20060202

AI US 2005-237442 A1 20050927 (11)

RLI Division of Ser. No. US 2002-96076, filed on 12 Mar 2002, PENDING

DT Utility

FS APPLICATION

LREP ENZO BIOCHEM, INC., 527 MADISON AVENUE (9TH FLOOR), NEW YORK, NY, 10022, US

CLMN Number of Claims: 17

ECL Exemplary Claim: 1-527

DRWN 15 Drawing Page(s)

LN.CNT 3943

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides for compositions for use in real time nucleic acid detection processes. Such real time nucleic acid detection processes are carried out with energy transfer elements attached to nucleic acid primers, nucleotides, nucleic acid probes or nucleic acid binding agents. Real time nucleic acid detection allows for the qualitative or quantitative detection or determination of single-stranded or double-stranded nucleic acids of interest in a sample. Other processes are provided by this invention including processes for removing a portion of a homopolymeric sequence, e.g., poly A sequence or tail, from an analyte or library of analytes. Compositions useful in carrying out such removal processes are also described and provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 7 OF 24 USPATFULL on STN

AN 2006:27904 USPATFULL

TI Chimeric nucleic acid constructs and compositions comprising sets of nucleic acid constructs

IN Rabbani, Elazar, New York, NY, UNITED STATES
Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Donegan, James J., Long Beach, NY, UNITED STATES
Coleman, Jack, East Northport, NY, UNITED STATES
Liu, Dakai, Islip, NY, UNITED STATES

PA Enzo Life Sciences, Inc., New York, NY, UNITED STATES (U.S. corporation)

PI US 2006024735 A1 20060202

AI US 2005-236151 A1 20050927 (11)
 RLI Division of Ser. No. US 2002-96076, filed on 12 Mar 2002, PENDING
 DT Utility
 FS APPLICATION
 LREP ENZO BIOCHEM, INC., 527 MADISON AVENUE (9TH FLOOR), NEW YORK, NY, 10022,
 US
 CLMN Number of Claims: 52
 ECL Exemplary Claim: 1-404
 DRWN 15 Drawing Page(s)
 LN.CNT 4013

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides for compositions for use in real time nucleic acid detection processes. Such real time nucleic acid detection processes are carried out with energy transfer elements attached to nucleic acid primers, nucleotides, nucleic acid probes or nucleic acid binding agents. Real time nucleic acid detection allows for the qualitative or quantitative detection or determination of single-stranded or double-stranded nucleic acids of interest in a sample. Other processes are provided by this invention including processes for removing a portion of a homopolymeric sequence, e.g., poly A sequence or tail, from an analyte or library of analytes. Compositions useful in carrying out such removal processes are also described and provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 8 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1
 AN 2005:1103247 CAPLUS
 DN 143:382388
 TI Fluorescent labeled nucleotide derivatives
 IN Shen, Gene G.-Y.; Lin, Yuan; Michael, Josephine M.
 PA USA
 SO U.S. Pat. Appl. Publ., 19 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005227240	A1	20051013	US 2004-821500	20040409
	WO 2005103162	A1	20051103	WO 2005-US9330	20050322
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,				
	CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,				
	GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,				
	LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,				
	NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM,				
	SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW:				
	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,				
	AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,				
	EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,				
	RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,				
	MR, NE, SN, TD, TG				

PRAI US 2004-821500 A 20040409

OS MARPAT 143:382388

AB Fluorescent labeled reporter compds. having a modified cyanine dye that is coupled to a nucleotide derivative through a linker are disclosed. The compds. are useful for nucleic acid sequence anal. The fluorescent labeled reporter compds. are ring-locked cyanine dyes that are coupled to a nucleotide derivative, such as a modified DNA base, through a linker. These fluorescent labeled reporter compds. can be used as DNA chain-terminators in DNA synthesis to generate DNA fragments that are fluorescently-labeled at the 3'-terminal end of the DNA fragment.

L9 ANSWER 9 OF 24 USPATFULL on STN

AN 2005:171229 USPATFULL
TI Methods for determining nucleotide sequence information
IN Su, Xing, Cupertino, CA, UNITED STATES
PI US 2005147976 A1 20050707
AI US 2003-748374 A1 20031229 (10)
DT Utility
FS APPLICATION
LREP DLA PIPER RUDNICK GRAY CARY US, LLP, 4365 EXECUTIVE DRIVE, SUITE 1100,
SAN DIEGO, CA, 92121-2133, US
CLMN Number of Claims: 36
ECL Exemplary Claim: 1
DRWN 4 Drawing Page(s)
LN.CNT 1833

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Provided herein, is a nucleic acid sequencing method based on detection of Raman signatures of oligonucleotide probes. Raman signatures of individually captured nucleic acid probes, optionally labeled by a Raman label or a positively charged enhancer, are detected. The sequences of captured probes are used to identify the nucleotide sequences of captured probes and complementary target nucleic acids, which are then aligned and used to obtain nucleic acid sequence information. In another embodiment, a method is provided for determining a nucleotide occurrence at a target nucleotide position of a target nucleic acid, that utilizes binding of the target nucleic acid to a labeled oligonucleotide probe that binds to the target nucleic acid, wherein the labeled oligonucleotide probe includes a first label and a second label, the first label being capable of affecting an optical property of the second label.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 10 OF 24 USPATFULL on STN
AN 2005:159178 USPATFULL
TI Real-time nucleic acid detection processes and compositions
IN Rabbani, Elazar, New York, NY, UNITED STATES
Stavrianopoulos, Jannis G., Baysnore, NY, UNITED STATES
Donegan, James J., Long Beach, NY, UNITED STATES
Coleman, Jack, East Northport, NY, UNITED STATES
Liu, Dakai, Islip, NY, UNITED STATES
PI US 2005137388 A1 20050623
AI US 2002-96076 A1 20020312 (10)
DT Utility
FS APPLICATION
LREP ENZO BIOCHEM, INC., 527 MADISON AVENUE (9TH FLOOR), NEW YORK, NY, 10022,
US
CLMN Number of Claims: 542
ECL Exemplary Claim: 1
DRWN 15 Drawing Page(s)
LN.CNT 6158

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides for compositions for use in real time nucleic acid detection processes. Such real time nucleic acid detection processes are carried out with energy transfer elements attached to nucleic acid primers, nucleotides, nucleic acid probes or nucleic acid binding agents. Real time nucleic acid detection allows for the qualitative or quantitative detection or determination of single-stranded or double-stranded nucleic acids of interest in a sample. Other processes are provided by this invention including processes for removing a portion of a homopolymeric sequence, e.g., poly A sequence or tail, from an analyte or library of analytes. Compositions useful in carrying out such removal processes are also described and provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 11 OF 24 USPATFULL on STN
AN 2005:5243 USPATFULL
TI Novel chemiluminescent reagents
IN Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Rabbani, Elazar, New York, NY, UNITED STATES
PA Enzo Life Sciences, Inc., New York, NY, 10022 (U.S. corporation)
PI US 2005004350 A1 20050106
AI US 2004-764388 A1 20040123 (10)
RLI Division of Ser. No. US 2002-96075, filed on 12 Mar 2002, PENDING
DT Utility
FS APPLICATION
LREP Ronald C. Fedus, Esq., Enzo Life Sciences, Inc., c/o Enzo Biochem, Inc.,
527 Madison Avenue (9th Floor), New York, NY, 10022-4304
CLMN Number of Claims: 17
ECL Exemplary Claim: CLM-1-286
DRWN 15 Drawing Page(s)
LN.CNT 3601

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides for labeling reagents, labeled targets and processes for preparing labeling reagents. The labeling reagents can take the form of cyanine dyes, xanthene dyes, porphyrin dyes, coumarin dyes or composite dyes. These labeling reagents are useful for labeling probes or targets, including nucleic acids and proteins. These reagents can be usefully applied to protein and nucleic acid probe based assays. They are also applicable to real-time detection processes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 12 OF 24 USPATFULL on STN
AN 2004:321700 USPATFULL
TI Labeling reagents comprising aphenylic analogs of rhodamine dyes
IN Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Rabbani, Elazar, New York, NY, UNITED STATES
PA Enzo Life Sciences, Inc., New York, NY (U.S. corporation)
PI US 2004254355 A1 20041216
AI US 2004-763076 A1 20040122 (10)
RLI Division of Ser. No. US 2002-96075, filed on 12 Mar 2002, PENDING
DT Utility
FS APPLICATION
LREP Ronald C. Fedus, Esq., Enzo Life Sciences, Inc., c/o Enzo Biochem, Inc.,
527 Madison Avenue (9th Floor), New York, NY, 10022-4304
CLMN Number of Claims: 286
ECL Exemplary Claim: 1
DRWN 15 Drawing Page(s)
LN.CNT 4545

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides for labeling reagents, labeled targets and processes for preparing labeling reagents. The labeling reagents can take the form of cyanine dyes, xanthene dyes, porphyrin dyes, coumarin dyes or composite dyes. These labeling reagents are useful for labeling probes or targets, including nucleic acids and proteins. These reagents can be usefully applied to protein and nucleic acid probe based assays. They are also applicable to real-time detection processes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 13 OF 24 USPATFULL on STN
AN 2004:306990 USPATFULL
TI Pseudo single color method for array assays
IN Bhattacharjee, Arindam, Andover, MA, UNITED STATES
PI US 2004241661 A1 20041202
AI US 2003-449136 A1 20030529 (10)
DT Utility

FS APPLICATION
LREP AGILENT TECHNOLOGIES, INC., INTELLECTUAL PROPERTY ADMINISTRATION, LEGAL
DEPT., P.O. BOX 7599, M/S DL429, LOVELAND, CO, 80537-0599
CLMN Number of Claims: 36
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 1239

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods of determining the amount of an analyte in a mixture of analytes are provided. The methods involve contacting a sample of analytes that is labeled with two or more distinguishably detectable labels with a probe for the analyte, and determining the amounts of the two or more distinguishably detectable labels bound with the probe. In certain embodiments, the methods include averaging the amounts of the two or more labels in order to determine the amount of analyte in the sample. Kits are provided for performing the invention. The subject invention finds use in a variety of different applications, including gene expression analysis, DNA sequencing, mutation detection and other genomics and proteomics applications.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 14 OF 24 USPATFULL on STN
AN 2004:292946 USPATFULL
TI Heterodimeric dye composition
IN Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Rabban, Elazar, New York, NY, UNITED STATES
PA Enzo Life Sciences, Inc., New York, NY, UNITED STATES, 10022 (U.S. corporation)
PI US 2004230036 A1 20041118
AI US 2004-764389 A1 20040123 (10)
RLI Division of Ser. No. US 2002-96075, filed on 12 Mar 2002, PENDING
DT Utility
FS APPLICATION
LREP Ronald C. Fedus, Esq., Enzo Life Sciences, Inc., c/o Enzo Biochem, Inc.,
527 Madison Avenue (9th Floor), New York, NY, 10022-4304
CLMN Number of Claims: 286
ECL Exemplary Claim: 1
DRWN 15 Drawing Page(s)
LN.CNT 4541

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides for labeling reagents, labeled targets and processes for preparing labeling reagents. The labeling reagents can take the form of cyanine dyes, xanthene dyes, porphyrin dyes, coumarin dyes or composite dyes. These labeling reagents are useful for labeling probes or targets, including nucleic acids and proteins. These reagents can be usefully applied to protein and nucleic acid probe based assays. They are also applicable to real-time detection processes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 15 OF 24 USPATFULL on STN
AN 2004:292164 USPATFULL
TI Novel dye labeling composition
IN Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Rabbani, Elazar, New York, NY, UNITED STATES
PA Enzo Life Sciences, Inc., New York, NY, 10022 (U.S. corporation)
PI US 2004229248 A1 20041118
US 6949659 B2 20050927
AI US 2004-764393 A1 20040123 (10)
RLI Division of Ser. No. US 2002-96075, filed on 12 Mar 2002, PENDING
DT Utility
FS APPLICATION
LREP Ronald C. Fedus, Esq., Enzo Life Sciences, Inc., c/o Enzo Biochem, Inc.,

527 Madison Avenue, 9th Floor, New York, NY, 10022-4304

CLMN Number of Claims: 4
ECL Exemplary Claim: CLM-1-286
DRWN 15 Drawing Page(s)
LN.CNT 3537

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides for labeling reagents, labeled targets and processes for preparing labeling reagents. The labeling reagents can take the form of cyanine dyes, xanthene dyes, porphyrin dyes, coumarin dyes or composite dyes. These labeling reagents are useful for labeling probes or targets, including nucleic acids and proteins. These reagents can be usefully applied to protein and nucleic acid probe based assays. They are also applicable to real-time detection processes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 16 OF 24 USPATFULL on STN
AN 2004:260541 USPATFULL
TI Process for preparing novel cyanine dye labeling reagents
IN Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Rabbam, Elazar, New York, NY, UNITED STATES
PA Enzo Life Sciences, Inc., New York, NY, 10022 (U.S. corporation)
PI US 2004203038 A1 20041014
AI US 2004-761906 A1 20040121 (10)
RLI Division of Ser. No. US 2002-96075, filed on 12 Mar 2002, PENDING
DT Utility
FS APPLICATION
LREP Ronald C. Fedus, Esq., Enzo Life Sciences, Inc., c/o Enzo Biochem, Inc.,
527 Madison Avenue (9th Floor), New York, NY, 10022-4304
CLMN Number of Claims: 15
ECL Exemplary Claim: CLM-1-286
DRWN 15 Drawing Page(s)
LN.CNT 3584

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides for labeling reagents, labeled targets and processes for preparing labeling reagents. The labeling reagents can take the form of cyanine dyes, xanthene dyes, porphyrin dyes, coumarin dyes or composite dyes. These labeling reagents are useful for labeling probes or targets, including nucleic acids and proteins. These reagents can be usefully applied to protein and nucleic acid probe based assays. They are also applicable to real-time detection processes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 17 OF 24 USPATFULL on STN
AN 2004:248291 USPATFULL
TI Process for detecting the presence or quantity of enzymatic activity in a sample
IN Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Rabbani, Elazar, New York, NY, UNITED STATES
PA Enzo Life Sciences, Inc., New York, NY, UNITED STATES, 10022 (U.S. corporation)
PI US 2004192893 A1 20040930
AI US 2004-764417 A1 20040123 (10)
RLI Division of Ser. No. US 2002-96075, filed on 12 Mar 2002, PENDING
DT Utility
FS APPLICATION
LREP Ronald C. Fedus, Esq., Enzo Life Sciences, Inc., c/o Enzo Biochem, Inc.,
527 Madison Avenue (9th Floor), New York, NY, 10022-4304
CLMN Number of Claims: 36
ECL Exemplary Claim: CLM-1-286
DRWN 15 Drawing Page(s)
LN.CNT 3665

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides for labeling reagents, labeled targets and processes for preparing labeling reagents. The labeling reagents can take the form of cyanine dyes, xanthene dyes, porphyrin dyes, coumarin dyes or composite dyes. These labeling reagents are useful for labeling probes or targets, including nucleic acids and proteins. These reagents can be usefully applied to protein and nucleic acid probe based assays. They are also applicable to real-time detection processes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 18 OF 24 USPATFULL on STN
AN 2004:228200 USPATFULL
TI Process for detecting the presence or quantity of enzymatic activity in a sample
IN Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Rabbani, Elazar, New York, NY, UNITED STATES
PA Enzo Life Sciences, Inc., New York, NY, UNITED STATES (U.S. corporation)
PI US 2004176586 A1 20040909
AI US 2004-764418 A1 20040123 (10)
RLI Division of Ser. No. US 2002-96075, filed on 12 Mar 2002, PENDING
DT Utility
FS APPLICATION
LREP Ronald C. Fedus, Esq., Enzo Life Sciences, Inc., c/o Enzo Biochem, Inc., 527 Madison Avenue (9th Floor), New York, NY, 10022-4304
CLMN Number of Claims: 286
ECL Exemplary Claim: 1
DRWN 15 Drawing Page(s)
LN.CNT 4543

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides for labeling reagents, labeled targets and processes for preparing labeling reagents. The labeling reagents can take the form of cyanine dyes, xanthene dyes, porphyrin dyes, coumarin dyes or composite dyes. These labeling reagents are useful for labeling probes or targets, including nucleic acids and proteins. These reagents can be usefully applied to protein and nucleic acid probe based assays. They are also applicable to real-time detection processes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 19 OF 24 USPATFULL on STN
AN 2003:319498 USPATFULL
TI Labeling reagents and labeled targets, target labeling processes and other processes for using same in nucleic acid determinations and analyses
IN Stavrianopoulos, Jannis G., Bayshore, NY, UNITED STATES
Rabbani, Elazar, New York, NY, UNITED STATES
PI US 2003225247 A1 20031204
AI US 2002-96075 A1 20020312 (10)
DT Utility
FS APPLICATION
LREP ENZO LIFE SCIENCES, INC., c/o ENZO BIOCHEM, INC., 527 Madison Avenue, 9th Floor, New York, NY, 10022
CLMN Number of Claims: 286
ECL Exemplary Claim: 1
DRWN 15 Drawing Page(s)
LN.CNT 4499

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides for labeling reagents, labeled targets and processes for preparing labeling reagents. The labeling reagents can take the form of cyanine dyes, xanthene dyes, porphyrin dyes, coumarin dyes or composite dyes. These labeling reagents are useful for labeling probes or targets, including nucleic acids and proteins. These reagents can be usefully applied to protein and nucleic acid probe based assays. They are also applicable to real-time detection processes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 20 OF 24 USPATFULL on STN
AN 2003:127894 USPATFULL
TI Fluorescent dye
IN Anderson, Jack, Oceanside, CA, UNITED STATES
Braman, Jeffrey Carl, Carlsbad, CA, UNITED STATES
PA Stratagene (U.S. corporation)
PI US 2003088109 A1 20030508
US 6706879 B2 20040316
AI US 2002-87072 A1 20020228 (10)
PRAI US 2001-272131P 20010228 (60)
DT Utility
FS APPLICATION
LREP PALMER & DODGE, LLP, KATHLEEN M. WILLIAMS / STR, 111 HUNTINGTON AVENUE,
BOSTON, MA, 02199
CLMN Number of Claims: 49
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 1292

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to fluorescent dyes. More particularly, the invention relates to fluorescent cyanine dyes, and especially to water soluble fluorescent cyanine dyes that contain additional sites for attachment to biomolecules. The invention provides a group of novel, water soluble fluorescent cyanine dyes that have distinct fluorescence characteristics that permit their use in any assay or method suited to water soluble fluorescent dyes, and especially to assays requiring a plurality of distinguishable fluorescent markers. The invention further relates to nucleotides, nucleosides, polynucleotides and polypeptides labeled with novel fluorescent cyanine dyes according to the invention, and methods of using them.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 21 OF 24 USPATFULL on STN
AN 2000:157162 USPATFULL
TI Methods of sequencing and detection using energy transfer labels with cyanine dyes as donor chromophores
IN Glazer, Alexander N., Orinda, CA, United States
Mathies, Richard A., Moraga, CA, United States
Hung, Su-Chun, Richmond, CA, United States
Ju, Jingyue, Redwood City, CA, United States
PA The Regents of the University of California, Oakland, CA, United States (U.S. corporation)
PI US 6150107 20001121
AI US 1998-164800 19981001 (9)
RLI Division of Ser. No. US 1996-726178, filed on 4 Oct 1996, now patented, Pat. No. US 5853992
DT Utility
FS Granted
EXNAM Primary Examiner: Riley, Jezia
LREP Townsend and Townsend and Crew LLP
CLMN Number of Claims: 28
ECL Exemplary Claim: 1
DRWN 22 Drawing Figure(s); 14 Drawing Page(s)
LN.CNT 1151

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Cyanine dyes are used as the donor fluorophore in energy transfer labels in which light energy is absorbed by a donor fluorophore and transferred to an acceptor fluorophore which responds to the transfer by emitting fluorescent light for detection. The cyanine dyes impart an unusually high sensitivity to the labels thereby improving their usefulness in a

wide variety of biochemical procedures, particularly nucleic acid sequencing, nucleic acid fragment sizing, and related procedures.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 22 OF 24 USPATFULL on STN
AN 1999:146785 USPATFULL
TI Non-sulfonated cyanine dyes for labeling nucleosides and nucleotides
IN Brush, Charles K., Whitefish Bay, WI, United States
Reimer, Ned D., West Allis, WI, United States
PA Amersham Pharmacia Biotech Inc., Piscataway, NJ, United States (U.S. corporation)
PI US 5986086 19991116
AI US 1997-879596 19970620 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Wilson, James O.
LREP Quarles & Brady LLP
CLMN Number of Claims: 14
ECL Exemplary Claim: 1
DRWN 5 Drawing Figure(s); 6 Drawing Page(s)
LN.CNT 819

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A chemical compound of the following formula: ##STR1## wherein R.sup.1 is selected from the group consisting of alkyl, aralkyl, and substituted alkyl groups; R.sup.3 is selected from the group consisting of H, PO.sub.3.sup.-2, P.sub.2 O.sub.6.sup.-3 ; P.sub.3 O.sub.9.sup.-4, and α -thio phosphates (PSO.sub.2.sup.-2 ; P.sub.2 SO.sub.5.sup.-3 ; P.sub.3 O.sub.8.sup.-4); and α BH.sub.3.sup.- phosphates (P(BH.sub.3)O.sub.2.sup.-2, P.sub.2 (BH.sub.3)O.sub.5.sup.-3, P.sub.3 (BH.sub.3)O.sub.8.sup.-4); R.sup.4 is selected from the group consisting of H, lower alkyl, acyl, (CH.sub.2).sub.p COO(CH.sub.2).sub.q CH.sub.3 wherein p is an integer from 0 to 4 and q is an integer from 0 to 4, and 5,6; 6,7; or 7,8-butadienyl; R.sup.5 is selected from the group consisting of H lower alkyl, acyl, (CH.sub.2).sub.p COO(CH.sub.2).sub.q CH.sub.3 wherein p is an integer from 0 to 4 and q is an integer from 0 to 4 and 5,6; 6,7; or 7,8-butadienyl; r is 1, 2, or 3 to form a second fused aromatic; X or Y are selected from the group consisting of O, S, C(R.sup.6).sub.2, or N(R.sub.6), wherein R.sup.6 is preferably CH.sub.3 or a lower alkyl; and R.sub.3 --O-Sugar-Base is a nucleoside or nucleotide is disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 23 OF 24 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN
AN 1999-105604 [09] WPIDS
DNC C1999-031439 [09]
TI New non-sulphonated cyanine dyes linked to nucleoside or nucleotide - are used for fluorescent labelling of nucleosides, nucleotides and nucleic acids
DC B02; B04; E23
IN BRUSH C K; REIMER N D
PA (AMSH-C) AMERSHAM BIOSCIENCES CORP; (AMSH-C) AMERSHAM PHARMACIA BIOTECH INC
CYC 21
PIA WO 9858942 A1 19981230 (199909)* EN 37[5]
US 5986086 A 19991116 (200001) EN
EP 989990 A1 20000405 (200021) EN
JP 2002507203 W 20020305 (200220) JA 33
EP 989990 B1 20030604 (200344) EN
DE 69815342 E 20030710 (200353) DE
ADT WO 9858942 A1 WO 1998-US12593 19980616; US 5986086 A US 1997-879596 19970620; DE 69815342 E DE 1998-69815342 19980616; EP 989990 A1 EP

1998-930319 19980616; EP 989990 B1 EP 1998-930319 19980616; DE 69815342 E
EP 1998-930319 19980616; EP 989990 A1 WO 1998-US12593 19980616; JP
2002507203 W WO 1998-US12593 19980616; EP 989990 B1 WO 1998-US12593
19980616; DE 69815342 E WO 1998-US12593 19980616; JP 2002507203 W JP
1999-504736 19980616

FDT DE 69815342 E Based on EP 989990 A; EP 989990 A1 Based on WO 9858942 A; JP
2002507203 W Based on WO 9858942 A; EP 989990 B1 Based on WO 9858942 A; DE
69815342 E Based on WO 9858942 A

PRAI US 1997-879596 19970620

AN 1999-105604 [09] WPIDS

AB WO 1998058942 A1 UPAB: 20060115

Non-sulphonated cyanine dyes linked to a nucleotide or nucleoside of formula (I) are new. R1 = alkyl (optionally substituted) or aralkyl; R3 = H, PO3-2, P2O6-3, P3O9-4, a-thiophosphates or aBH3- phosphates; R4, R5 = H, lower alkyl, acyl, (CH2)pCOO(CH2)qCH3 or 5,6-, 6,7- or 7,8-butadienyl; p,q = 0-4; r = 1-3; X,Y = O, S, C(R6)2 or N(R6); R6 = CH3 or lower alkyl; R3-O-sugar-base = nucleoside or nucleotide. Also claimed is a method of labelling a nucleic acid molecule comprising the incorporation of (I) into a nucleic acid chain, and further determining the nucleic acid sequence of the molecule.

USE - (I) are used for fluorescent labelling of nucleosides, nucleotides and nucleic acids (claimed).

ADVANTAGE - Non-sulphonated carbocyanines are soluble in solvents used for oligonucleotide synthesis and are easily synthesized and purified.

Member(0002)

ABEQ US 5986086 A UPAB 20060115

Non-sulphonated cyanine dyes linked to a nucleotide or nucleoside of formula (I) are new. R1 = alkyl (optionally substituted) or aralkyl; R3 = H, PO3-2, P2O6-3, P3O9-4, a-thiophosphates or aBH3- phosphates; R4, R5 = H, lower alkyl, acyl, (CH2)pCOO(CH2)qCH3 or 5,6-, 6,7- or 7,8-butadienyl; p,q = 0-4; r = 1-3; X,Y = O, S, C(R6)2 or N(R6); R6 = CH3 or lower alkyl; R3-O-sugar-base = nucleoside or nucleotide. Also claimed is a method of labelling a nucleic acid molecule comprising the incorporation of (I) into a nucleic acid chain, and further determining the nucleic acid sequence of the molecule.

USE - (I) are used for fluorescent labelling of nucleosides, nucleotides and nucleic acids (claimed).

ADVANTAGE - Non-sulphonated carbocyanines are soluble in solvents used for oligonucleotide synthesis and are easily synthesized and purified.

Member(0003)

ABEQ EP 989990 A1 UPAB 20060115

Non-sulphonated cyanine dyes linked to a nucleotide or nucleoside of formula (I) are new. R1 = alkyl (optionally substituted) or aralkyl; R3 = H, PO3-2, P2O6-3, P3O9-4, a-thiophosphates or aBH3- phosphates; R4, R5 = H, lower alkyl, acyl, (CH2)pCOO(CH2)qCH3 or 5,6-, 6,7- or 7,8-butadienyl; p,q = 0-4; r = 1-3; X,Y = O, S, C(R6)2 or N(R6); R6 = CH3 or lower alkyl; R3-O-sugar-base = nucleoside or nucleotide. Also claimed is a method of labelling a nucleic acid molecule comprising the incorporation of (I) into a nucleic acid chain, and further determining the nucleic acid sequence of the molecule.

USE - (I) are used for fluorescent labelling of nucleosides, nucleotides and nucleic acids (claimed).

ADVANTAGE - Non-sulphonated carbocyanines are soluble in solvents used for oligonucleotide synthesis and are easily synthesized and purified.

L9 ANSWER 24 OF 24 USPATFULL on STN

AN 1998:162264 USPATFULL

TI Cyanine dyes with high-absorbance cross section as donor chromophores in energy transfer labels

IN Glazer, Alexander N., Orinda, CA, United States
Mathies, Richard A., Moraga, CA, United States
Hung, Su-Chun, Richmond, CA, United States
Ju, Jingyue, Redwood City, CA, United States
PA The Regents of the University of California, Oakland, CA, United States
(U.S. corporation)
PI US 5853992 19981229
AI US 1996-726178 19961004 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Houtteman, Scott W.
LREP Townsend and Townsend and Crew LLP
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CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Cyanine dyes are used as the donor fluorophore in energy transfer labels in which light energy is absorbed by a donor fluorophore and transferred to an acceptor fluorophore which responds to the transfer by emitting fluorescent light for detection. The cyanine dyes impart an unusually high sensitivity to the labels thereby improving their usefulness in a wide variety of biochemical procedures, particularly nucleic acid sequencing, nucleic acid fragment sizing, and related procedures.

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